

further that these statements were made with the knowledge that making willful false statements and the like is punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

In the Claims:

Please delete Claim 8 substitute the following amended claim 8:

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8. (once amended) A method for producing a desired protein or domain thereof, which comprises admixing:

- (I) a first oligopeptide, said first oligopeptide comprising a fragment of said desired protein or domain thereof, and having a C-terminal thioester; and
- (II) a second oligopeptide, said second oligopeptide comprising a fragment of said desired protein or domain thereof, and having an N-terminal cysteine amino acid residue having an unoxidized sulfhydryl side chain and a free amino group that is capable of forming a  $\beta$ -aminothioester linkage with said C-terminal thioester that rearranges to form an amide bond therein between;

wherein said admixing is conducted under conditions sufficient to permit the formation of an amide bond between the C-terminus of said first oligopeptide and the N-terminus of said second oligopeptide.

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Please cancel claims 9, 15-16, and 17-23, without prejudice.

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Please delete claim 24 and substitute the following amended claim 24:

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24. (once amended) A synthetically produced protein of greater than about 35 amino acid residues, wherein all of the residues of said protein are linked to adjacent residues via an amide bond, said protein being produced by the process of ligating together at least two oligopeptide fragments wherein:

- B13
- (1) said first oligopeptide fragment having a length of 30 or more amino acid residues with a C-terminal non- $\beta$ -branched amino acid residue modified as a C-terminal thioester; and
  - (2) said second oligopeptide fragment has an N-terminal cysteine having an unoxidized sulfhydryl side chain and a free amino group that is capable of forming a  $\beta$ -aminothioester linkage with said C-terminal thioester that rearranges to form an amide bond therein between; wherein said ligation results in the formation of an amide bond linking said first and second fragments, wherein said synthetically produced protein being a derivative of a naturally isolatable protein or fragment thereof, said N-terminal cysteine not being found in the naturally isolatable protein.

Please cancel claims 25 and 27-28, without prejudice.

Please delete claims 30 and 31 and substitute the following amended claims 30 and 31:

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30. (once amended) The synthetically produced protein of claim 29, wherein said mammalian protein is a human protein.